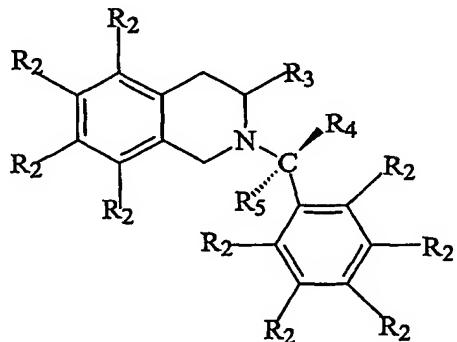


CLAIMS

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is as follows:

1. A sulfated compound having the chemical structure:



wherein

R₂ is selected from the group consisting of hydrogen and sulfate moieties, and may be the same or different at each location, provided that at least one location is a sulfate moiety, and

R₃ is selected from the group consisting of hydrogen and a carboxylate moiety,

R₄ is a hydrogen or oxygen, and

R₅ is a hydrogen if R₄ is a hydrogen, and is absent if R₄ is oxygen.

2. The sulfated compound of claim 1 further comprising at least one cation or cationic group

selected from the group consisting of sodium, potassium, ammonium, and

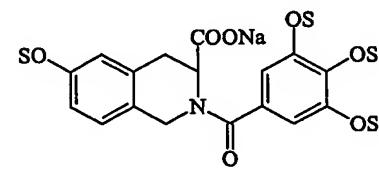
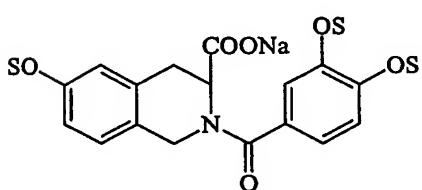
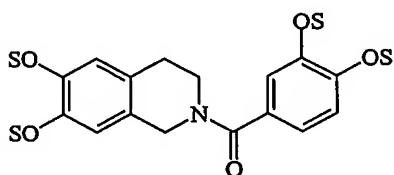
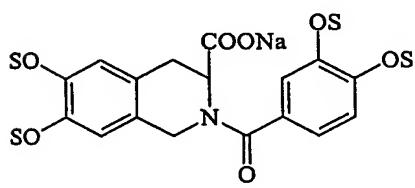
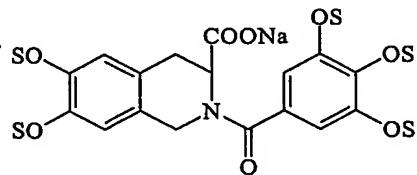
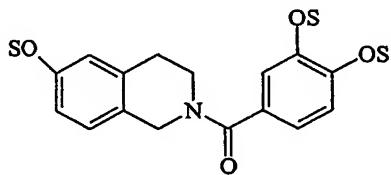
tetraalkylammonium.

3. The sulfated compound of claim 1 wherein R₃ is hydrogen.

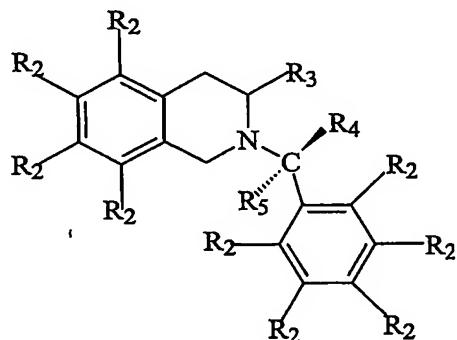
4. The sulfated compound of claim 1 wherein R₃ is a carboxylate moiety.

5. The sulfated compound of claim 1 wherein at least two of R₂ are sulfate moieties.

6. The sulfated compound of claim 1 wherein at least three of R₂ are sulfate moieties.
7. The sulfated compound of claim 1 wherein at least four of R₂ are sulfate moieties.
8. The sulfated compound of claim 1 wherein at least five of R₂ are sulfate moieties.
9. The sulfated compound of claim 1 wherein at least one of R₂ on a phenyl ring and at least one of R₂ on an isoquinoline ring is a sulfate moiety.
10. The sulfated compound of claim 1 wherein R₄ is oxygen of a carbonyl and R₅ is absent.
11. The sulfated compound of claim 1 wherein R₄ and R₅ are hydrogen.
12. The sulfated compound of claim 1 having a chemical structure selected from the group consisting of:



13. An anticoagulation method comprising the step of exposing blood or a component thereof to a compound having the chemical structure:



wherein

R₂ is selected from the group consisting of hydrogen and sulfate moieties, and may be the same or different at each location, provided that at least one location is a sulfate moiety, and

R₃ is selected from the group consisting of hydrogen and a carboxylate moiety,

R₄ is a hydrogen or oxygen, and

R₅ is a hydrogen if R₄ is a hydrogen, and is absent if R₄ is oxygen.

14. The method of claim 13 wherein the exposing step is performed extracorporeal.

15. The method of claim 13 wherein R₄ is an oxygen.